

Notice of Allowability

Application No.

10/807,298

Applicant(s)

CHOI, TAEK-KYUN

Examiner

Art Unit

Andrew Wendell

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS:** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/11/2007.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION
EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Demetra Smith-Stewart on 6/25/2007.

The application has been amended as follows: Claim 15, line 4, the term "service" has been changed to --services--;

Claim 15, line 6, the term "service" has been changed to --services--.

Response to Amendment

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Allowable Subject Matter

3. Claims 1-24 are allowable over the cited prior art.

Regarding independent claim 1, Ito et al. (US Pat# 6,993,357) teaches performing a TV reception function 5d (Fig. 5) and a calling function in a multimode mobile phone supporting two or more communication services (Fig. 4).

The prior art of record fails to teach an apparatus for simultaneously performing a TV reception function and a calling function in a multimode mobile phone supporting two or more communication services, comprising a first Radio Frequency (RF) switch

Art Unit: 2618

for separating a received signal into N communication services; M duplexers associated with the communication services, for separating a signal received from the first RF switch into a call signal and a TV signal; a second RF switch for applying the TV signal received from the duplexers to a TV tuner; and a controller for controlling an overall operation of the multimode mobile phone and controlling the first RF switch and the second RF switch according to the received signal.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 1-5. Note, claims 1-5 are objected to for minor informalities.

Regarding independent claim 6, in Ito et al. (US Pat# 6,993,357) in view of Pau (US Pat# 6,754,508). Ito teaches performing a TV reception function 5d (Fig. 5) and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access service (Fig. 4). Pau teaches a tri-mode mobile phone capable of supporting a Personal Communications Service (Fig. 5).

The prior art of record fails to teach an apparatus for simultaneously performing a TV reception function and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access (CDMA) service, a Personal Communications Service (PCS) service and a Global Positioning System (GPS) service, the apparatus comprising a first Radio Frequency (RF) switch for switching a received signal to a first diplexer, a second diplexer or a GPS RF switch; the first diplexer for separating a signal received via the first RF switch into a PCS signal and a TV signal; the second diplexer for separating a signal received via the first RF switch

into a CDMA signal and a TV signal; and a second RF switch for switching the TV signal from the first diplexer and the second diplexer to a TV tuner.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 6-14.

Regarding claim 15, Peckham (US Pat# 6,298,224) teaches separating a received signal into a corresponding communication service using a Radio Frequency switch 402 (Fig. 4, it receives radio frequency and therefore a Radio Frequency switch because it receives GSM, DCS, and PCS signals (Col. 2 lines 18-30)); separating the communication service using a diplexer 404 (Fig. 4).

Ito (US Pat# 6,993,357) teaches separating a received signal into a corresponding communication service (Fig. 4); separating the communication service into a call signal 5b (Fig. 5) and a TV signal 5d (Fig. 5), and performing at least one of a calling function 5b (Fig. 5) and a TV reception function 5d (Fig. 5).

The prior art of record fails to teach a method for simultaneously performing a TV reception function and a calling function in a multimode mobile phone supporting two or more communication services, comprising the steps of separating a received signal into a corresponding communication services using a Radio Frequency (RF) switch; separating the communication service using diplexers into a call signal and a TV signal, and performing at least one of a calling function and a TV reception function.

Also, the applicant's remarks made on 6/11/2007 are further reasons for allowance.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 15-17.

Regarding independent claim 18, in Ito et al. (US Pat# 6,993,357) in view of Pau (US Pat# 6,754,508). Ito teaches performing a TV reception function 5d (Fig. 5) and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access service (Fig. 4). Pau teaches a tri-mode mobile phone capable of supporting a Personal Communications Service (Fig. 5).

The prior art of record fails to teach a method for simultaneously performing a TV reception function and a calling function in a tri-mode mobile phone including a first Radio Frequency (RF) switch for switching a received signal to a first diplexer, a second diplexer or a GPS RF switch, the first diplexer for separating a signal received from the first RF switch into a PCS signal and a TV signal, the second diplexer for separating a signal received from the first RF switch into a CDMA signal and a TV signal, and a second RF switch for switching the TV signal from the first and second diplexers to a TV tuner, the tri-mode mobile phone being capable of supporting a Code Division Multiple Access (CDMA) service, a Personal Communications Service (PCS) service and a Global Positioning System (GPS) service, the method comprising the steps of receiving a signal in a PCS mode of the tri-mode mobile phone; if the received signal is a PCS signal, applying the PCS signal to a PCS diplexer via the first diplexer to perform a calling function; and if the received signal is a TV signal, applying the TV signal to the TV tuner via the first diplexer and the second RF switch to perform a TV reception function.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 18-20.

Regarding independent claim 21, in Ito et al. (US Pat# 6,993,357) in view of Pau (US Pat# 6,754,508). Ito teaches performing a TV reception function 5d (Fig. 5) and a calling function in a tri-mode mobile phone capable of supporting a Code Division Multiple Access service (Fig. 4). Pau teaches a tri-mode mobile phone capable of supporting a Personal Communications Service (Fig. 5).

The prior art of record fails to teach a method for simultaneously performing a TV reception function and a calling function in a tri-mode mobile phone including a first Radio Frequency (RF) switch for switching a received signal to a first diplexer, a second diplexer or a GPS RF switch, the first diplexer for separating a signal received from the first RF switch into a PCS signal and a TV signal, the second diplexer for separating a signal received from the first RF switch into a CDMA signal and a TV signal, and a second RF switch for switching the TV signal from the first and second diplexers to a TV tuner, the tri-mode mobile phone being capable of supporting a Code Division Multiple Access (CDMA) service, a Personal Communications Service (PCS) service and a Global Positioning System (GPS) service, the method comprising the steps of receiving a signal in a CDMA mode of the tri-mode mobile phone; if the received signal is a CDMA signal, applying the CDMA signal to a CDMA diplexer via the second diplexer to perform a calling function; and if the received signal is a TV signal, applying the TV signal to the TV tuner via the second diplexer and the second RF switch to perform a TV reception function.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 21-24.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Choi discloses an apparatus for commonly using antenna for call signal and television broadcasting signal in radio communication terminal.

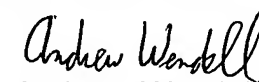
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


NAY MAUNG

SUPERVISORY PATENT EXAMINER


Andrew Wendell

Application/Control Number: 10/807,298
Art Unit: 2618

Page 8

Examiner
Art Unit 2618

6/25/2007